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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,441	07/29/2003	Alastair Hodges	LFSCAN.079C1C1	8256

45416 7590 12/23/2005

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EXAMINER	
OLSEN, KAJ K	
ART UNIT	**PAPER NUMBER**
1753	

DATE MAILED: 12/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action Before the Filing of an Appeal Brief	**Application No.** 10/630,441	**Applicant(s)** HODGES ET AL.	
	Examiner Kaj K. Olsen	**Art Unit** 1753	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 01 December 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☐ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:
   a) ☐ The period for reply expires _____months from the mailing date of the final rejection.
   b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

   Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
   (b) ☐ They raise the issue of new matter (see NOTE below);
   (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).
4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
   The status of the claim(s) is (or will be) as follows:
   Claim(s) allowed: _____.
   Claim(s) objected to: _____.
   Claim(s) rejected: 1-19.
   Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: see attached discussion.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). _____
13. ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 12-1-2005 have been fully considered but they are not persuasive. In response, the examiner has addressed the arguments concerning Allen in view of Maley and Schlereth in view of Maley simultaneously as they are drawn to the same fundamental issues.

2. Applicant opens with a discussion of Maley and the reasons Maley added surfactant to its platinized activated carbon (PAC) material (presumably because of the hydrophobic binder) and come to the conclusion that the teaching of Maley is only useful for the teaching of adding surfactant to PAC layers. The examiner finds this overly narrow reading of Maley unpersuasive. The surfactants of Maley do not appear to be contributing to the chemistry of the electrode surfaces nor the electrode modifiers (i.e. the PAC layer). Rather, the surfactants are utilized to facilitate the wetting up of the surfaces of the electrodes. This is what surfactants are by definition for. Why is this wetting up somehow unique to PAC surfaces? One possessing ordinary skill in the art would recognize that the surfactants would facilitate the wetting up of electrode surfaces irregardless of the particular chemistry being monitored by that electrode surface. Applicant points out that Maley presumably added surfactants to the PAC layer because of the hydrophobic binder retards wetting up. Here the examiner believes the applicant has raised an important issue in that the partially hydrophobic nature of the electrode of Maley is what necessitated the addition of surfactant. However, the examiner will point out that gold (utilized by both Allen and Schlereth) is a hydrophobic material. The examiner would also point out that a number of the sulfur moieties being relied on by Allen and Schlereth have aliphatic

and aromatic constituents. Aliphatic and aromatic constituents typically have hydrophobic character. In fact, the components of Allen and Schlereth anticipate a number of the components relied on by the instant invention. Although applicant does not appear to have explained why they have added the overcoating of surfactant, the examiner will presume hypothetically for the sake of argument that the surfactant layer of the instant invention is present to facilitate the wetting up of the electrode surface. After all, this is what surfactants are conventionally utilized for. If the examiner is correct here, this evidences that a metal electrode having a coating of the sulfur components of Allen and Schlereth (again Allen and Schlereth anticipated a number of the instant invention sulfur moieties) would also have had a partial hydrophobic quality to them. Hence, because Maley taught the addition of a surfactant to improve the wetting up of partially hydrophobic electrode surfaces, then one possessing ordinary skill in the art would have appreciated that surfactants could have facilitated the wetting up of the partially hydrophobic surfaces of Allen and Schlereth.

3. Applicant urges that Maley is drawn to a different device, used in a different way, for the analysis of a different analyte. First, Maley, Allen and Schlereth are all being utilized in the aqueous monitoring of biological processes and constituents and these references are from similar electrochemical endeavors. Second, what Maley is being utilized for (i.e. the surfactant) is completely independent of the particular chemistries being monitored at the electrode surface. Surfactants by definition facilitate the wetting up of surfaces and they find widespread utility anywhere one wishes to improve the wetting up quality of their device. To suggest that one possessing ordinary skill in the art wouldn't recognize that surfactant added to one particular electrode wouldn't find utility with any other similar electrode is not credible.

4. Applicant also urges that there isn't a reasonable expectation of success. However, as the examiner pointed in paragraph 28 of the final rejection and in this communication above, the function of the surfactant is completely tangential to the chemistries being monitored. This is evidenced by Maley who only suggested that the surfactant is present to improve sensor wet up, and it is evidenced by the instant invention that doesn't give any indication that the surfactant in any way contributes to the electrochemistry being monitored. Moreover, the instant invention deals with a large class of sulfur containing coatings having widely varying structures and chemistries (see claims 2-17 as examples) combined with an overcoating of surfactant. If applicant gave no indication that the surfactant interacted with these various coatings in any distinctive manner, then how can we come to the conclusion that the surfactant invokes any question of reasonable expectation of success.

5. Applicant also traverse the fact that Maley teaches adding the surfactant to the PAC layer and not to a coating over the electrode surface. However, the PAC layer of Maley is the coating over the electrode surface. In particular, the PAC layer is the layer that alters the functionality of the metal electrode underneath. This is precisely analogous to what the coatings of Allen and Schlereth are doing as well, namely altering the chemistry of the underlying metal electrode.

6. Applicant also traverses the examiner's interpretation of "overcoating" by pointing out the specification states that the surfactant is "in a layer over the sulfur containing layer". First, applicant isn't claiming "over the sulfur containing layer" by rather an "overcoating". The term "overcoating" and the phrase "over the sulfur containing layer" do not have the same scope and for the examiner to read language from the specification into the different claim term would unduly limit the scope of the applicant's claims. Second, because the sulfur containing moiety

has a higher affinity for the electrode material than the surfactant and the surfactant thereby forms a layer over the sulfur containing moiety, then why wouldn't a surfactant added to either Allen or Schlereth also have the same result? Both Allen and Schlereth bond sulfur containing moieties to gold surfaces, like the instant invention. Hence, any surfactant added to one of these electrodes would presumably then form over the sulfur containing layer like that of the instant invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kaj Olsen whose telephone number is (571) 272-1344. The examiner can normally be reached on Monday through Thursday from 5:30 A.M. to 3:00 P.M. and on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen, can be reached on 571-272-1342. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AU 1753
December 20, 2005

KAJ K. OLSEN
PRIMARY EXAMINER